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EXAMINER	
NAJJAR, SALEH	

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Please find below and/or attached an Office communication concerning this application or proceeding.

– The MAILING DATE of this communication appears on the cover sheet with the correspondence address –

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on _31 July 2003_ .

2a) ☐ This action is **FINAL**.   2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) _1-36_ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) _1-36_ is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) ☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

    If approved, corrected drawings are required in reply to this Office action.

12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

        1.☐ Certified copies of the priority documents have been received.

        2.☐ Certified copies of the priority documents have been received in Application No. _____ .

        3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

    a) ☐ The translation of the foreign language provisional application has been received.

15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)   4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)   5) ☐ Notice of Informal Patent Application (PTO-152)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .   6) ☐ Other: .

1.   This action is responsive to the preliminary amendment filed on July 31, 2003.
Claims 1, 4, 10, 15 Claims 1-36 are pending. Claims 1-36 represent method and
apparatus for managing address translations for replicated files in a network .

2.   The following is a quotation of the second paragraph of 35 U.S.C. 112:
The specification shall conclude with one or more claims particularly pointing out and
distinctly claiming the subject matter which the applicant regards as his invention.

       Claims 1-9 are rejected under 35 U.S.C. 112, second paragraph, as being
indefinite for failing to particularly point out and distinctly claim the subject matter which
applicant regards as the invention.

       In claim 1, it is unclear whether the hyperlink or the parent file is interpretable by
the browser.

       Claims 7-9 recites the limitation "the program" in line 2 of claim 7. There is
insufficient antecedent basis for this limitation in the claim.

3.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that
form the basis for the rejections under this section made in this Office action:
       A person shall be entitled to a patent unless --
       (e) the invention was described in a patent granted on an application for patent by another filed in the
       United States before the invention thereof by the applicant for patent, or on an international application
       by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this
       title before the invention thereof by the applicant for patent.

4.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all
obviousness rejections set forth in this Office action:
       (a) A patent may not be obtained though the invention is not identically disclosed
       or described as set forth in section 102 of this title, if the differences between the
       subject matter sought to be patented and the prior art are such that the subject
       matter as a whole would have been obvious at the time the invention was made
       to a person having ordinary skill in the art to which said subject matter pertains.
       Patentability shall not be negatived by the manner in which the invention was
       made.

       This application currently names joint inventors. In considering patentability of
the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of
the various claims was commonly owned at the time any inventions covered therein
were made absent any evidence to the contrary. Applicant is advised of the obligation

under 37 CAR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5.   Claims 1-9, 14-15, and 33-36 are rejected under 35 U.S.C. 102(e) as being anticipated by Domenikos et al., U.S. Patent No. 6,115,741 (referred to hereafter as Dom).

Dom teaches the invention as claimed including a system and method for executing application programs from a memory device linked to a server (see abstract).

As to claim 1, Dom teaches a method of communication between a client computer and a server computer connected to the client computer by a communications network, the method comprising the steps of:

(a) receiving, at the client, a user's selection of a hyperlink displayed by a browser, the hyperlink being a logical point of access to a file, the hyperlink being associated with a logical reference contained in a parent file interpretable by the browser to display the hyperlink, the logical reference uniquely identifying the file independently of an electronic address at which the file is located (See fig. 1; col. 7-9, Dom discloses that a client is presented with a web page have links upon the user selection of a parent file or page);

(b) identifying an electronic address corresponding to the logical reference; and

(c) receiving, at the client, the file identified by the logical reference (see figs. 1-7; col. 9, Dom discloses that the client selection of a link is translated to a request fora particular file at the server).

As to claim 2, Dom teaches method of claim 1, wherein the identifying step is performed at the client by reference to a list of physical references at the client, the list of physical references identifying a plurality of electronic addresses corresponding to the logical reference (see figs. 1-7; col. 14, Dom discloses a remote file pointers used by the client to access files).

As to claims 3-4, Dom teaches the method of claim 2, wherein the identifying step is performed at the client by a program for selecting a server and the method further comprises the step of:

(d) receiving at the client the program for selecting a server, further comprising the step of: (e) receiving at the client a parent file containing the logical point of access; wherein step (d) is performed during step (e); and step (e) is performed before step (a) (see col. 17-18, Dom discloses a launcher program sent to the client for selecting the file transfer sites).

As to claims 5-6, Dom teaches the method of claim 2, wherein the list of physical references is appended to the parent file and wherein the server modifies the parent file to include the list of physical references before transmitting the parent file to the client (See col. 17-18).

As to claims 7-9, Dom teaches method of claim 6, wherein the server transmits the program for selecting a server to the client, wherein the server modifies the parent file to include the server selection program, wherein the server computer modifies the parent file to include a reference to the server selection program before transmitting the parent file to the client (see col. 9-10, col. 17-18).

Claims 14-15, and 33-36 do not teach or define any new limitation above claims 1-9, and therefore are rejected for similar reasons.

6.   Claims 10, and 22 are rejected under 35 U.S.C. 102(e) as being anticipated by Guenthner et al., U.S. Patent No. 6,230,196 (referred to hereafter as Guen).

Guen teaches the invention as claimed including generation of smart HTML anchors in dynamic web page creation (see abstract).

As to claim 10, Guen teaches method of communication between a client computer and a server computer connected to the client computer by a communications network, the method comprising the steps of:

(a) receiving, at the server, a request for transfer to a client of a parent file containing a logical reference, the request being in the form of a physical reference;(b) modifying the parent file, at the server, by inserting therein a list of physical references

corresponding to each logical reference; and (c) transmitting, from the server to the client, the modified parent file (see figs. 1-6; col. 4-7, Guen discloses that in response to a client request for HTML document having a link to a requested resource the server routine generates a HTML page having at least one hyperlink reference with path information pointing to the most appropriate host).

Claim 22 does not teach or define any new limitation above claim 10 and therefore is rejected for similar reasons.

7.   Claims 16-19 are rejected under 35 U.S.C. 102(e) as being anticipated by Guenthner et al., U.S. Patent No. 6,134,588 (referred to hereafter as Guen).

As to claim 16, Guen teaches the client computer comprising:

a memory for storing programs and data; a processor for executing programs; a parent file, stored in the memory, containing a logical reference uniquely identifying a file independently of an electronic address at which the file is located (see figs. 1-6; col. 4-7);

a list of physical references, stored in the memory, listing at least one electronic address for each logical reference; and a program, stored in the memory, for selecting a server responsive to a request for the file identified by the logical reference, the program requesting the file using an electronic address from the list indicating the file's location on the selected server, and to repeatedly select an alternate server and submit an alternate request if the file is irretrievable from the selected server until the file is transmitted to the client or until the file has been requested from all servers identified in the list (see col. 4-8).

As to claim 17, Guen teaches the client of claim 16, wherein the server selection program selects a server which is most likely to provide a fastest response time (see col. 4-7, Guen discloses several server selection criteria based on shortest response time).

As to claim 18, Guen teaches the client of claim 17, wherein the server selection program selects an alternate server which is most likely to provide a next-fastest response time, if the first selected server fails to begin transmission of the requested file

to the client within a predetermined amount of time (see col. 4-9, Guen discloses that the Hal list of addresses are reconstructed at the client).

As to claim 19, Guen teaches the client of claim 18, wherein the program for selecting a server is comprises an instructional applet written in the Java programming language (see col. 6, Guen discloses that a plugin is used for server selection).

8.   Claims 11-13, and 23-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Guen (196) further in view of Dom.

Guen teaches the invention substantially as claimed including generation of smart HTML anchors in dynamic web page creation (see abstract).

As to claims 11-13, Guen teaches the method of claim 10.

Guen fails to teach the limitation wherein the method further comprises the step of: (d) modifying the file, at the server, by inserting therein a program for selecting a server. Guen does teach that applications are selected from links provided on a web page and that a plugin is utilized by the client station to select the server from the HAL list (see col. 6).

However, Dom teaches embedding a program for selecting a server (see col. 17-18, Dom discloses a launcher program sent to the client for selecting the file transfer sites).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Guen by embedding a program for selecting a server to automate a process on the client of selecting the appropriate server as taught by Dom. One would be motivated to do so to provide simple access to plugin programs or helper applications.

As to claim 23, Guen teaches the server of claim 22, wherein the server stores in the memory a Host address list (HAL) associating logical references to files with electronic addresses of the files stored on a plurality of servers, the list of electronic addresses being excerpted from the address directory (see col. 4-8).

Guen fails to teach the claimed limitation of a replication directory. Guen does teach that a memory at the server does store host address list capable of delivering a particular file (see col. 4-8).

"Official Notice" is taken that the concept and advantages of using a replication directory is old and well known in the art. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Guen by specifying the HAL lists as replication directories since the same functionality is achieved.

As to claims 24-25, Guen teaches the server of claim 23.

Guen fails to teach the limitation , further comprising a second program for modifying the parent file by inserting a program for selecting a server upon a request for a file identified by a logical reference before transmitting the parent file. Guen does teach that applications are selected from links provided on a web page and that a plugin is utilized by the client station to select the server from the HAL list (see col. 6).

However, Dom teaches embedding a program for selecting a server (see col. 17-18, Dom discloses a launcher program sent to the client for selecting the file transfer sites).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Guen by embedding a program for selecting a server to automate a process on the client of selecting the appropriate server as taught by Dom. One would be motivated to do so to provide simple access to plugin programs or helper applications.

As to claim 26, Guen teaches the server of claim 25, further comprising a third program for identifying a status of each server identified in each electronic address in the replication directory (see col. 4-8, Guen teaches that the client traverses the list of addresses to asses the response of the servers).

Guen fails to teach the limitation of identifying the servers as a parent or child of the server in a genealogy tree representing servers storing the file.

However, "Official Notice" is taken that the concept and advantages of identifying or classifying servers as using a parent or child of the server in a genealogy tree representing servers storing the file is old and well known in the art.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Guen by identifying or classifying servers as using a parent or child of the server in a genealogy tree representing servers storing the file to accurately depict server status information.

As to claims 27-29, Guen teaches the server of claim 26, further comprising a fourth program for tracking the server's load (see col. 4-8.

Guen fails to teach the limitation of autonomously determine when, on the basis of the server's load, to delete one of the server's files, to delete the file, to update the server's replication directory to remove the electronic address of the file on the server, and to propagate an update request to all parent and children of the server in the replication directory requesting the parent and children to update their respective replication directories.

However, "Official Notice" is taken that the concept and advantages of "autonomously determine when, on the basis of the server's load, to delete one of the server's files, to delete the file, to update the server's replication directory to remove the electronic address of the file on the server, and to propagate an update request to all parent and children of the server in the replication directory requesting the parent and children to update their respective replication directories" is old and well known in the art.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Guen by autonomously determine when, on the basis of the server's load, to delete one of the server's files, to delete the file, to update the server's replication directory to remove the electronic address of the file on the server, and to propagate an update request to all parent and children of the server in the replication directory requesting the parent and children to update their respective replication directories. One would be motivated to do so to implement an accurate load balancing model.

As to claim 30, Guen teaches the server of claim 29.

Guen fails to teach the limitation further comprising a seventh program for batching several. updates into a single update request.

However, "Official Notice" is taken that the concept and advantages of batching several updates into a single update request is old and well known in the art.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Guen so that several update requests are patched into a single request. One would be motivated to do so to reduce network traffic.

As to claim 31, Guen teaches the server of claim 30, further comprising a eighth program for transmitting to another server, along with an update request, a local time stamp indicating the time at which an update to the server's address directory was made, the other server receiving and retaining a record of the time stamp and updating the address directory (see col. 4-8, Guen discloses that the HAL update messages include time stamps.

Guen fails to teach the claimed limitation of a replication directory. Guen does teach that a memory at the server does store host address list capable of delivering a particular file (see col. 4-8).

"Official Notice" is taken that the concept and advantages of using a replication directory is old and well known in the art. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Guen by specifying the HAL lists as replication directories since the same functionality is achieved.

As to claim 32, Guen teaches the server of claim 31, further comprising a ninth program for retaining -the time stamp for a limited period of time, the other server updating the address directory if a time stamp is received along with an update request and no time stamp is then retained by the other server (see col. 4-8).

9.   Claims 20-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Guen (196).

As to claim 20, Guen teaches the client of claim 19.

Guen fails to teach the limitation wherein the applet employs object signing technology to open connections to various servers and to save its state on a storage device on the client. Guen doe teach that authorization to a user group at the beginning of a session request (see col. 3-4).

However, "Official Notice" is taken that the concept and advantages of using an applet that employs object signing technology to open connections to various servers and to save its state on a storage device on the client is old and well known in the data processing art.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Guen by employing a embedded program applet to automatically authorize the client. One would be motivated to do so to automate the authorization routine at the client.

As to claim 21, Guen teaches the client of claim 20, wherein the server selection program determines a server's expected response time on the basis of the server's times for response to past requests from the server selection program (see col. 4-8).

10.   Applicant's arguments filed July 31, 2003 have been fully considered but they are not persuasive.

In the remarks, the applicant argues in substance that; A) the Domenikos reference does not teach a "parent file interpretable by the browser to display the hyperlink" as in claim 1; B) the hyperlink in Domenikos is not a logical reference or analogous to a logical reference, because the hyperlink appears in a browser not in a parent file; C) concerning claim 10, there is no disclosure of modifying a file containing a logical reference at a server to insert a list of physical references corresponding to the logical reference so that a single file includes both a logical reference and a corresponding physical references.

In response to A) and B); any web page that is selectable using a link identifier represents a file.

In response to C); please refer to the new grounds of rejection.

11.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to Saleh Najjar whose telephone number is (703) 308-7613. The examiner can normally be reached on Monday-Friday from 6:30 to 3:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, *Ario Etienne*, can be reached on (703) 308-7562. The fax phone number for this Group is (703) 308-9052.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-9600. The fax number for the After-Final correspondence/amendment is (703) 746-7238. The fax number for official correspondence/amendment is (703) 746-7239. The fax number for Non-official draft correspondence/amendment is (703) 746-7240.

Saleh Najjar
Primary Examiner / Art Unit 2157